

Application No.: 10/633,182
Amendment Dated March 28, 2008
Reply to Office Action of September 28, 2007

Amendments to the Claims:

1. (Currently Amended) An extraneous matter removing system for a steam turbine comprising a casing defining a duct, and turbine blades provided with a moving blade which rotates together with a rotor and a stator blade which is located on the upstream side of said moving blade and is held on the casing side and are housed in said duct, wherein the duct is operatively positioned to introduce a fluid to the turbine blades and said moving blade is rotated by said fluid introduced into said duct, wherein said system comprises:

a pressure gage operatively positioned for detecting the pressure between the stator blade and the moving blade;

a first water injection nozzle disposed at a position upstream of said stator blade and connected to a water supply source via a first valve;

a first plurality of water injection nozzle nozzles disposed in said stator blade and connected to a water supply source via a first second valve, wherein the plurality of water injection nozzles comprises a first plurality of nozzles operatively positioned to cause water to flow onto the surface of the stator blade and a second plurality of nozzles operatively positioned to inject water onto a back surface of the moving blade, the first plurality of nozzles being positioned upstream of the second plurality of nozzles; and

a control unit for regulating the opening of said first and second valves valve according to the pressure detected by said pressure gage so that one or both of the valves are valve is opened when the detected pressure has a value between a predetermined minimum pressure and a predetermined maximum pressure so that extraneous matter adhering to the surface of a turbine blade is removed by water injected from said first water injection nozzle nozzles.

2-3. (Cancelled)

4. (Original) The extraneous matter removing system for a turbine according to claim 1, wherein said moving blade is subjected to surface reforming to prevent said moving blade from being damaged by water injected from said first water injection nozzle.

5. (Cancelled)

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6. (Currently Amended) The extraneous matter removing system for a turbine according to claim[[2]] 1, wherein said stator blade is subjected to surface reforming to prevent said stator blade from being damaged by the injected water.

7. (Cancelled)

8. (New) The extraneous matter removing system for a turbine according to claim 4, wherein the surface reforming of the moving blade comprises a hardening diffusion heat treatment or a chemical evaporation film coating.

9. (New) The extraneous matter removing system for a turbine according to claim 6, wherein the surface reforming of the stator blade comprises a hardening diffusion heat treatment or a chemical evaporation film coating.

10. (New) The extraneous matter removing system for a turbine according to claim 1, wherein the stator blade comprises opposing surfaces and the first plurality of nozzles comprises nozzles operatively positioned to cause water to flow on both opposing surfaces of the stator blade.